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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,304	11/20/2001	Debashis Haldar	1776	4837

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EXAMINER

AVELLINO, JOSEPH E

ART UNIT

PAPER NUMBER

2143

DATE MAILED: 08/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/998,304

Applicant(s)

HALDAR ET AL.

Examiner

Joseph E. Avellino

Art Unit

2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6, 12, 15-20 and 27-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6, 12, 15-20 and 27-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims are pending in this examination. The Office acknowledges the cancellation of claims 1-5, 7-11, 13-14, 21-26, in previous responses and the addition of claims 27-29.

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 6, 12, 15-20,27-29 are rejected under 35 U.S.C. 101 because they are not statutory. Applicant is advised that in order for a claimed invention to be patentable, it must produce a "useful, concrete and tangible result." State Street, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02. As such, the claimed invention merely calculates an "interest level" which is neither tangible, nor concrete as claimed. Calculations are not a tangible result because they do nothing. Correction is required.

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims **6, 12, 15-20,27-29** are rejected under 35 U.S.C. 103(a) as being unpatentable over Herz (U.S. Patent Number **6,460,036 B1**), hereinafter referenced to as Herz in view of Eichstaedt et al. (U.S. Patent Number **6,654,735 B1**) hereinafter referenced to as Eichstaedt in view of Shimizu et al. (USPN 5,821,929) (hereinafter Shimizu), and further in view of Rose et al (U.S. Patent Number **5,724,567**) hereinafter referenced to as Rose in view of Fishman et al. (USPN 6,871,236) (hereinafter Fishman).

Herz taught a method/system for measuring an Internet user's level of interest in a given subject comprising:

establishing a count of web pages sent to a user that each contain at least a threshold number of keywords related to the given subject (**column 13 lines 5-17, column 15 lines 25-34 and column 17 lines 10-24**); and

using the count as a basis to establish a measure of the user's interest in the given subject and using a combination of values (**abstract, column 12 lines 44-52, from column 58 line 55 to column 60 line 11 and column 13 lines 5-9**). Herz expressively disclosed an invention counting relevant words and documents viewed by the user and using such counts to determine a user's interest level, see **column 13**.

Examiner clarifies that Herz taught the evaluation of TF (term frequency) measures that are intrinsically based on keywords (**column 13 lines 5-17**) and later taught a similarity measure clearly dependent, at least in part, on key word counts (TF) (**column 15 lines 25-34**) and later taught matching buyers and sellers based on a threshold of

similarity (**column 17 lines 10-24**); such similarity based on keywords. It is appreciated that even though Herz is matching buyers and seller; such sellers are presented to the user in the form of electronic documents.

Herz did not expressly teach the invention *without a user's first created profile*.

Eichstaedt, taught determining the interest level of a user in a particular subject, disclosed a method that determines a user's interest level *without a first created profile* therefore providing a *fully passive method* to determine a user's interest level by analyzing words in the input provided by a user (**abstract, column 11 lines 32-40 and column 12 lines 40-44**).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the methods/systems of Herz with the teachings of Eichstaedt, motivated by Herz to explore the art of searching the Internet (**column 2 lines 5-12, column 60 lines 44-49**) and screening emails (**column 56 lines 44-49**), in order to provide a method/system that initiates the determination of a user interest level analyzing Herz's documents presented to the user with a passive and easier method for the user. Examiner further clarifies that Herz taught or at least suggest utilizing the list of documents having a number of documents (**column 11 lines 42-43**) and Eichstaedt expressly taught the use of a total number of documents representing a numeric value (**Eichstaedt: column 11 lines 51-56**). Therefore the combination taught a numeric

value representing the documents visited or sent to the user. Herz further taught pages satisfying a threshold on a particular subject as explained above using Herz teachings found in **(column 13 lines 5-17, column 15 lines 25-34 and column 17 lines 10-24)**. Herz further taught the use of the actual count value of keywords in **column 13 lines 5-9**.

Herz further taught counting keywords related to the given subject matter **(column 12 lines 44-50 and column 13 lines 5-9)** that appear in the web page **(column 9 lines 31-34 and column 60 lines 44-49)**, therefore combination of Herz and Eichstaedt taught the invention substantially as claimed, however the combination of Herz and Eichstaedt did not expressively teach details regarding capping the count at a maximum predetermined number of keywords (threshold).

In analogous art, Shimizu discloses another network system which teaches placing a maximum number of how many times a term appears in a document (Figure 13, ref. S1303: N).

It would have been obvious to one of ordinary skill in the art to combine the teaching of Shimizu with Herz and Eichstaedt in order to prevent one document with numerous keywords from skewing the document frequency values, therefore if a plurality of non-keyword documents are found, and one document with a very high level of keywords, this document will not provide a false interest in this particular subject, resulting in a

greater level of accuracy for the calculations. Examiner further clarifies that Herz taught or at least suggest utilizing the list of documents having a number of documents **(column 11 lines 42-43)** and Eichstaedt expressly taught the use of a total number of documents representing a numeric value in a category (i.e. which would suggest to one of ordinary skill in the art that each document in the category contains at least a threshold number of keywords related to the category) **(Eichstaedt: column 11 lines 51-56)** and the use of a capped page keyword count (Shimizu). The sum of the keyword counts inherently would be less than the count of web pages multiplied by the maximum number of keywords, since if the cap is set at the maximum, then multiplying the cap by the number of pages would yield the maximum multiplied by the number of pages. Therefore the combination taught a numeric value representing the documents visited or sent to the user. Herz further taught pages satisfying a threshold on a particular subject as explained above using Herz teachings found in **(column 13 lines 5-17, column 15 lines 25-34 and column 17 lines 10-24)**. Herz further taught the use of the actual count value of keywords in **column 13 lines 5-9**.

2. The cited references above did not expressly teach the algorithm occurring in a mobile IP gateway. In analogous art, Fishman discloses another method of measuring an Internet user's interest level by caching data at a mobile IP gateway. It would have been obvious to one of ordinary skill in the art to combine the teaching of Fishman with Herz, Eichstaedt, Shimizu and Rose to implement this algorithm in the mobile IP gateway of Fishman in order to provide an efficient method of measuring a user's

interest for a plurality of mobile users, thereby resulting in an increased use of the system.

Claims 27-29 are rejected for similar reasons as stated above. Furthermore Shimizu states that the maximum keyword count is assumed to be five, which would indicate to one of ordinary skill in the art that this value could be arbitrarily changed, resulting in a maximum keyword count of ten.

Regarding claims **16-19**, Eichstaedt taught combining past measures with present measures to provide a combined or composite measure (**column 5 lines 19-40**) and techniques to give different credit (weighted) to the time stamp of an email (document or object) (**column 9 line 64 to column 10 line 10**). Eichstaedt expressively taught the combination of principal and new measure in the form of current and long-term interests and giving less importance to older interests using a scoring function.

The combination of Herz, Eichstaedt and Shimizu taught the intention substantially as claimed, however the combination of Herz, Eichstaedt and Shimizu did not teach specific details regarding establishing a sum of the values of keywords related to the given subject matter that appear in the web page.

Rose, in the same field of endeavor related to improve the retrieval of desirable objects, taught establishing a sum of the values of keywords related to the given subject matter that appear in the web page (**column 6 lines 4-17**). Rose recites, "In a content-based approach, each term, e.g. each word, in a document can be assigned a weight, based on its statistical importance. Thus, for example, words which frequently occur in a particular language are given a low weight value, while those which are rarely used have a high weight value. The weight value for each term is multiplied by the number of times that term occurs in the document." Therefore Rose discloses a mathematical procedure that produces the same result of the claimed invention.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the combination of Herz, Eichstaedt and Shimizu with the teachings of Rose, motivated by Shimizu and Rose to explore the art of measuring interest of objects displaying only selected or discriminated objects (**See abstract in Shimizu and column 4 line 63 to column 5 line 3 in Rose**), in order to obtain a system that count relevant words in a document and provides a means for computing the total of a sum of values corresponding to relevant words the n times the relevant word appears in a document.

Response to Arguments

3. Applicant's arguments filed August 7, 2006 have been fully considered but they are not persuasive.

4. In the remarks, Applicant argues, in substance, that (1) determining a user's interest in a subject is a concrete, tangible, and useful result and is therefore statutory under 35 USC 101, (2) the cited references do not recite the use of a Mobile IP home agent, (3) the cited references do not disclose capping a keyword count at a maximum for each web page, (4) the cited references do not disclose a count keyword threshold, and (5) the cited references do not suggest determining a users interest in a subject.

5. As to point (1) Applicant is incorrect. Merely calculating a value has no intrinsic usefulness unless it is actually used to do something. Although the intermediate steps may recite limitations which may be tangible, the final step is merely calculating a value, which is not statutory because it does nothing. It is merely a value. It is recommended to amend the claim such that the claimed level of user's interest is used in some way, shape, or form. By this rationale, the rejection is maintained.

6. As to point (2) Applicant's argument is moot due to the new grounds of rejection presented above.

7. As to point (3) Shimizu discloses capping at a total number of keywords, since Shimizu discloses (according to Applicant) the total number of instances of keywords,

however also discloses the total number of frequency of nouns which is set at 2. This would yield a total number of keywords per page to be set to 10, since there are 5 instances of keywords, times two occurrences each, provides 10 total keywords. By this rationale, the rejection is maintained.

8. As to point (4) Applicant has not defined what is sufficiently meant by “threshold number of keywords related to a given subject”. As such this threshold value can be defined as any page having any number of keywords, including zero. By this rationale, this effectively mitigates this argument and this limitation and therefore this rejection is maintained.

9. As to point (5) in many of the claims, Applicant has not concretely defined as to how this interest is generated, merely that it is done. However, Applicant has defined in claim 15 a specific algorithm of $K \text{ times } S \text{ divided by } P$. This algorithm would be found obvious over Herz, since Herz discloses determining a keyword’s count versus its “global frequency” which is a measure of its “uninformativeness” with respect to the total frequency of all the words. These values combined yield what is known as a value of “term frequency times inverse document frequency”. This value would clearly encompass the $K \text{ times } S \text{ divided by } P$ formula Applicant has claimed in claim 15. By this rationale, the rejection is maintained.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached PTO-892 for details.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Applicant employs broad language, which includes the use of word, and phrases, which have broad meanings in the art. In addition, Applicant has not argued any narrower interpretation of the claim language, nor amended the claims significantly enough to construe a narrower meaning to the limitations. As the claims breadth allows multiple interpretations and meanings, which are broader than Applicant's disclosure, the Examiner is forced to interpret the claim limitations as broadly and as reasonably possible, in determining patentability of the disclosed invention. Although the claims are


interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir.1993).

Failure for Applicant to significantly narrow definition/scope of the claims and supply arguments commensurate in scope with the claims implies the Applicant intends broad interpretation be given to the claims. The Examiner has interpreted the claims with scope parallel to the Applicant in the response, and reiterates the need for the Applicant to more clearly and distinctly, define the claimed invention.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph E. Avellino whose telephone number is (571) 272-3905. The examiner can normally be reached on Monday-Friday 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JEA
August 21, 2006



JEFFREY PWU
PRIMARY EXAMINER